WHAT IS CLAIMED IS:

1. An expandable curing bladder for use in curing rubber products is composed of a rubber composition comprised of, based on parts weight per 100 parts by weight rubber (phr):

(A) an isobutylene copolymer rubber selected from butyl rubber and/or halobutyl rubber, and

(B) about 0.5 to about 40 phr of a dispersion contained therein of micro-capsules comprised of a micro-encapsulated lubricant;

wherein said butyl rubber is comprised of a copolymer of isobutylene and isoprene which contains from about 0.5 to about 5 weight percent units derived from isoprene;

wherein said halobutyl rubber is a halogenated butyl rubber which is comprised of a chlorinated or brominated copolymer of isobutylene and isoprene which contains from about 0.5 to about 5 weight percent units derived from isoprene; and

wherein said micro-capsules are comprised of said lubricant which is micro-encapsulated within a thin walled shell of an organic polymer.

2. The expandable curing bladder of claim 1 for use in curing pneumatic rubber tires.

3. The expandable curing bladder of claim 2 wherein said lubricant is a polysiloxane.

4. The expandable curing bladder of claim 2 wherein said lubricant is a poly(dimethylsiloxane)

5. A curing press for curing an uncured toroidally shaped pneumatic rubber tire which contains said expandable curing bladder of claim 2 to assist shaping and curing said pneumatic tire.

6. A process of using said expandable curing bladder of claim 2 to shape and cure a pneumatic tire which comprises:

(A) inserting an uncured toroidally shaped pneumatic rubber tire into a curing mold having said expandable curing bladder positioned therein;

(B) closing said curing mold and inflating said expandable curing bladder to expand said expandable curing bladder outwardly against an inner surface of said uncured pneumatic rubber tire to force said uncured pneumatic tire against a mold surface of said curing mold;

(C) curing said uncured pneumatic rubber tire in said curing mold at an elevated temperature in a range of about 140°C to about 180°C;

(D) deflating said expandable curing bladder; and

(E) removing the resultant cured pneumatic rubber tire from the curing mold and expandable curing bladder.

7. The expandable curing bladder of claim 2 wherein said thin walled shells have an average diameter in a range of from about 1 to about 500 microns.

8. The expandable curing bladder of claim 2 wherein the thin walls of said shells are comprised of an organic polymer selected from a polyamide, polyester, polyurethane or polyurea based composition.

9. The expandable curing bladder of claim 8 wherein said thin walls of said shells are comprised of a polyamide or polyester based composition.

10. The expandable curing bladder of claim 2 wherein the walls of said shells are comprised of a polymerization product of a diamine and diacid chloride.

11. The expandable curing bladder of claim 2 wherein the walls of said shells are comprised of a polymerization product of a bisphenol and diacid chloride.

12. The expandable curing bladder of claim 2 wherein the walls of said shells are comprised of a bisphenol and diisocyanate.

13. The expandable curing bladder of claim 2 wherein the walls of said shells are comprised of a polymerization product of a polyamine and a diisocyanate.

14. The expandable curing bladder of claim 2 wherein the butyl rubber for the expandable bladder is cured with at least one curative including from about 0.5 to about 12 phr of a combination of polychloroprene rubber and phenol-formaldehyde resin.

15. The expandable curing bladder of claim 2 wherein said bladder rubber composition contains about 2 to about 8 phr of at least one of castor oil, corn oil, soya-bean oil and paraffinic oil.

16. The expandable curing bladder of claim 2 wherein the bladder rubber composition contains about 0.1 to about 30 phr of graphite and/or polytetrafluoroethylene powder.

17. The expandable curing bladder of claim 2 wherein the bladder rubber composition contains about 1 to about 15 phr of an ultra high molecular weight polyethylene (UHMWPE) having a melting point in the range of about 125°C to about 140°C.

18. The process of claim 6 wherein said encapsulated lubricant:

(A) is released from the micro-encapsulation shell by the shell wall being ruptured, melted, absorbed into the rubber composition or absorbed by the lubricant itself or by the lubricant diffusing through the shell wall during the expansion and contraction of the bladder at an elevated temperature as it is being worked, and the released lubricant

(B) migrates to the surface of the expandable curing bladder to provide a coating of said lubricant on the curing bladder surface and thereby promote a self-releasing property to the curing bladder surface.

19. The expandable curing bladder of claim 1 having a coating of said

lubricant on the surface thereof delivered by the release of said micro-encapsulated lubricant from its micro-encapsulation and its migration to the surface of the expandable curing bladder.

20. The expandable curing bladder of claim 2 having a coating of said lubricant on the surface thereof delivered by the release of said micro-encapsulated lubricant from its micro-encapsulation and its migration to the surface of the expandable curing bladder.